Applicant: Gary A. Clawson et al. Attorney's Docket No.: 14017-0009US1 / PSU 2002-

Serial No.: 10/552,914 Filed: October 13, 2005

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## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

1-159. (Cancelled)

- 160. (Currently Amended) A method of identifying sequences capable of inducing RNA interference against a target mRNA, said method comprising:
- (a) introducing a vector preparation into cells, wherein each vector of said vector preparation comprises:
  - a target nucleic acid sequence, wherein said target nucleic acid sequence is a template for said target mRNA;
  - (2) a reporter nucleic acid sequence, wherein said reporter nucleic acid sequence encodes a polypeptide, and wherein said target nucleic acid sequence and said reporter nucleic acid sequence are transcribed as a single fusion mRNA;
  - (3) a weak promoter sequence operably linked to said target nucleic acid and said reporter nucleic acid; and
  - [[(4)]] (3) a promoter sequence region, wherein said promoter sequence region comprises: (i) a member of a plurality of test nucleic acid sequences, and (ii) a promoter sequence operably linked to said member in an arrangement that promotes transcription of said member:
  - (b) identifying at least one cell lacking said polypeptide; and
- (c) obtaining the sequence of said member from said cell identified in step (b), thereby identifying said sequence as being capable of inducing RNA interference against said target mRNA
- 161. (Previously presented) The method of claim 160, wherein said polypeptide is a fluorescent polypeptide.

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162. (Previously presented) The method of claim 160, wherein said polypeptide is lethal to

said cell.

163. (New) The method of claim 160, wherein said member is a double stranded RNA and

wherein transcription is promoted by a first promoter operably linked to the sense strand of said double-stranded RNA and a second promoter operably linked to the antisense strand of said

double-stranded RNA

64. (New) The method of claim 163, wherein said first promoter has a different nucleotide

sequence than said second promoter.

(New) The method of claim 163, wherein at least one of said first and second promoters

is a weak promoter.

66. (New) The method of claim 163, wherein at least one of said first and second promoters

is a U6 promoter.

167. (New) The method of claim 160, wherein said member is a stem-loop RNA and wherein

transcription is promoted by a first promoter operably linked to the sense strand of said stem-

loop RNA and a second promoter operably linked to the antisense strand of said stem-loop RNA or a single promoter operably linked to the sense strand or the antisense strand of said stem-loop

RNA

111121.

168. (New) The method of claim 167, wherein said first promoter has a different nucleotide

sequence than said second promoter.

169. (New) The method of claim 167, wherein at least one of said first and second promoters

is a weak promoter.

170. (New) The method of claim 167, wherein at least one of said first and second promoters

is a U6 promoter.

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171. (New) The method of claim 167, wherein said single promoter is a U6 promoter.

- 172. (New) The method of claim 160, wherein said cells are selected from the group consisting of kidney cells, skin cells, liver cells, neurons, muscle cells, and lymphocytes.
- 173. (New) The method of claim 160, wherein said vector preparation is introduced to a plurality of cells and wherein each of said plurality of cells comprises at least one of each vector of said vector preparation.
- 174. (New) The method of claim 173, wherein said vector preparation comprises a plurality of vectors, wherein said member of each vector of said plurality of vectors comprises a different nucleic acid sequence.